

CLAIMS

[1] An engine-driven generator formed by supporting on a frame (2) an engine (3) and a generator (4) driven by the engine (3),

characterized in that the frame is formed as an open periphery framework type frame (2), within this frame (2) a duct member (31) is disposed around the outer periphery of the engine (3) and the generator (4), the duct member (31) defining a series of cooling air passages (32) between itself and the engine (3) and generator (4), a cooling fan (26) is provided in the cooling air passage (32), the cooling fan (26) being driven by the engine (3) so as to generate cooling air flowing from the upstream end side to the downstream end side of the duct member (31) in the cooling air passage (32), an intake box (34) having an intake opening (38) at an outer end thereof and housing an electrical component (53, 55) is connected to the upstream end of the duct member (31), and an exhaust box (68) having an exhaust opening (73) at an outer end thereof and housing an exhaust muffler (74) of the engine (3) is connected to the other end of the duct member (31).

[2] The engine-driven generator according to Claim 1,

wherein the intake box (34) and the exhaust box (68) are formed as a muffler expansion chamber.

[3] The engine-driven generator according to Claim 2,

wherein a fuel tank (5) is disposed above the duct member (31), the fuel tank (5) covering an upper face of the duct member (31) throughout its length.

[4] The engine-driven generator according to either Claim 1 or 2,

wherein an assembly of the engine (3) and the generator (4) is resiliently supported on the frame (2), the duct member (31) is fixedly supported on the assembly, the intake box (34) is fixedly supported on the frame (2), and the duct member (31) and the intake box (34) are connected via a seal (41) that allows relative displacement therebetween.

[5] The engine-driven generator according to any one of Claims 1 to 3,

wherein the generator (4) is formed from a magnet generator (4) that includes an outer rotor (23) cantilever-supported by a crankshaft (17) of the engine (3), and the cooling fan (26) is mounted on an outer end face of the outer rotor (23).

[6] The engine-driven generator according to Claim 1,

wherein an intake control system (44) of the engine (3) and an air cleaner (45) for cleaning intake air therefor are disposed outside the duct member (31), and an air inlet of the air cleaner (45) is connected to the intake box (34).

[7] The engine-driven generator according to Claim 1,

wherein the upstream end of the duct member (31) is connected to the intake box (34) having the intake opening (38), an air cleaner (45) of the engine (3) is disposed outside the duct member (31), and an air inlet pipe (47a) of the air cleaner (45) is connected to the intake box (34).

[8] The engine-driven generator according to Claim 7,

wherein an assembly of the engine (3) and the generator (4) is resiliently supported on the frame (2), the duct member (31) and the air cleaner (45) are fixedly supported on the assembly, the intake box (34) is fixedly supported on the frame (2), the duct member (31) and the intake box (34) are connected via a first seal (41) that allows relative displacement therebetween, and the intake box (34) and the air inlet pipe (47a) of the air cleaner (45) are connected via a second seal (41) that allows relative displacement therebetween.

[9] The engine-driven generator according to Claim 7,

wherein an assembly of the engine (3) and the generator (4) is resiliently supported on the frame (2), the duct member (31) is fixedly supported on the assembly, the air cleaner (45) and the intake box (34) are fixedly supported on the frame (2), the duct member (31) and the intake box (34) are connected via a first seal (41) that allows relative displacement therebetween, and the engine (3) and the air cleaner (45) are connected via a flexible communicating tube (46) that allows relative displacement therebetween.

[10] The engine-driven generator according to any one of Claims 7 to 9,

wherein a cylinder part (19) of the engine (3) is inclined toward one side of the crankcase (18), and at least part of the air cleaner (45) extending along the axial direction of the crankshaft (17) of the engine (3) is disposed beneath the cylinder part (19).

[11] The engine-driven generator according to any one of Claims 7 to 9,

wherein an electrical component (53, 55) is disposed within the intake box (34) between the intake opening (38a) and a section where the intake box (34) and the duct member (31) are connected.

[12] The engine-driven generator according to any one of Claims 7 to 9,

wherein the downstream end of the duct member (31) is connected to the exhaust box (68) having the exhaust opening (73), and an exhaust muffler (74) of the engine (3) is disposed in the exhaust box (68).

[13] The engine-driven generator according to Claim 1,

wherein the engine (3) is resiliently supported on the frame (2), the duct member (31) is fixedly provided on the engine (3) and the generator (4) within the frame (2), the duct member (31) defining the series of cooling air passages (32) between itself and the engine (3) and generator (4), the cooling fan (26) is disposed in the cooling air passage (32), the cooling fan (26) being driven by the engine (3) so as to generate a flow of cooling air in the cooling air passage (32), the intake box (34) having the intake opening (38a, 38b) and housing the electrical component (53, 55) is fixedly mounted on the frame (2), and the intake box (34) and an upstream part of the duct member (31) are connected so as to be linked to each other via a first seal (41) that allows relative displacement therebetween.

[14] The engine-driven generator according to Claim 13,

wherein an upstream end part (31a) of the duct member (31) is projectingly disposed within the intake box (34) so as to be in proximity to at least part of the electrical component (55).

[15] The engine-driven generator according to either Claim 13 or 14,

wherein a recoil type starter (27) of the engine (3) is disposed so that a rope pulley (114) of the recoil type starter (27) projects within the intake box (34), a starter rope (113) extending from the rope pulley (114) is taken outward from one side wall of the intake box (34), and an operating knob (117) is connected to the outer end of the starter rope (113).

[16] The engine-driven generator according to either Claim 13 or 14,

wherein an air cleaner (45) of the engine (3) is disposed outside the duct member (31), and an air inlet of the air cleaner (45) and the intake box (34) are connected so as to be linked to each other via a second seal (41) that allows relative displacement therebetween.